Mik Kloss Conversion of Mass Lab Period: 1&2 1-21-10

1. In step 5, we could tell a chemical reaction occurred because we observed a color change, the mixture turned white. The mixture also turned into a solid in some places (precipitate). The last major change we observed was the foam; the new mixture foamed up quite a bit. In step 7, there was also a chemical reaction. We know this because the foaming was even worse than the first mixture. A gas was also formed in step 7. We didn’t see it, or even smell it, we knew because we put the stopper back on and it actually popped off. The pressure created by the gas was enough to actually blow the top off.
2. We should have left the stopper off in step 7 (added the acid). Many may ask why. Well we found out exactly why we shouldn’t have put it on. When the acid was added, it reacted with a gas. With the stopper on, the gas created pressure inside the test tube and popped it off; which is a safety hazard with both a rubber top flying across the room, and harmful acid flying everywhere.
3. The point in this experiment was to observe how matter can be created or destroyed, we found out that it can’t (with what we’re doing). After mixing all of the substances and keeping the same materials, even after things looked way different, the masses of a, b, and c all stayed the same. Every time we weighed the new mass, it looked very different than it had before with all the chemical reactions; but the mass did indeed stay the same.
4. This lab did prove the law of conservation of mass to me. As it proved to me that nothing ever disappears, it can simply be “hiding” in the form of a gas maybe. There are a couple things we could’ve changed with this experiment. Starting with our scale. A more sensitive scale could’ve been useful. I’m also sure some things we did around the scale might have affected the outcome; such as bumping the table. Also, we most likely lost some of our mixture when mixing; like in step 7, the gas was created and the reaction caused some of it to flow out of the test tube before we could quite get the stopper back on, throwing our experiment off just a little bit.
6. When you burn a log in a fireplace, the ashes that are left over have a smaller mass than the log before it was burned. The answer to why this happens is rather simple. A fire is just a chemical reaction; most of the log is reacting and turning into gas when burning. The gas (smoke) simply goes into the air. That accounts for the missing mass of the ashes, a lot is actually in the air.